REMARKS

The comments of the applicant below are each preceded by related comments of the examiner (in small, bold type).

> **... the information disclosure statement lists as NPL PAIR Transaction Histories for U.S. Applications. Such NPL listed in the information disclosure statement is not a printed publication, and thus improper to list a published patent. ... If the co-pending Applications contain cited prior art which is pertinent to the patentability of the instant application, applicant is requested to list such prior art on an IDS for consideration. Citing a PAIR transaction history as NPL on an IDS, the examiner is only required to consider the document submitted.**

As explained in the information disclosure statement, the applicant invites the examiner to review the cited prosecution histories. The transaction histories are provided to aid the examiner in doing so.

> **Claims 34-40 are rejected under 35 U.S.C. 112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps. See MPEP § 2172.01. In claim 34, as amended, both limitations (receiving potential predictor and dependent variables representing historical data and model generation-combination) are still dangling. Both limitations are disconnected.**
>
> **Dependent claims inherit the defect of the claim from which they depend.**

Without conceding the examiner's position, the applicant has amended claim 34.

> **Claims 1, 3-5, 11, 13, 16, 26-28, 30, 31, 33, 34, and 36-40 are rejected under 35 U.S.C. 102(b) as being anticipated by Bounsaythip et al., (Bounsaythip hereinafter), Overview of Data Mining for Customer Behavior Modeling, (see IDS dated 10120108).**
>
> **As to claim 1, Bounsaythip discloses a machine-based method comprising: in connection with a project in which a predictive model is generated based on historical data about a system being modeled (see page 8, # 2.4.1), selecting variables having at least a first predetermined level of significance from a pool of potential predictor variables associated with the historical data, to form a first population of predictor variables (see page 6, # 2.3.3), extending the first population of predictor variables (see page 93, 2" paragraph) and extending the first population of predictor variables (see page 6, # 2.3.3, next to last paragraph), ...**

The examiner does not suggest that any part of Bounsaythip meets the limitation of claim 1 that recites "extending the first population ... to include cross products of at least two variables".

Bounsaythip did not describe and would not have made obvious at least this feature of claim 1. In the section cited by the examiner, Bounsaythip described generating new fields of data through "combinations" of other data values. Yet Bounsaythip did not describe and would not have made obvious that "cross products of at least two variables" were used.

For this reason alone, Bounsaythip could not have anticipated or made obvious claim 1.

... selecting variables having at least a second predetermined level of significance from the extended first population of predictor variables to form a second population of predictor variables (see page 6, # 2.3.3, last paragraph), extending the second population of predictor variables to include cross products of at least two variables, at least one of the variables being from the pool of predictor variables and having less than the first predetermined level of significance (see page 6, # 2.3.3, next to last paragraph), ...

The applicant disagrees. Bounsaythip did not describe and would not have made obvious "extending the second population ... to include cross products of at least two variables, at least one of the variables being from the pool of predictor variables and having less than the first predetermined level of significance". First, as stated previously, Bounsaythip did not include "cross products of at least two variables".

Moreover, claim 1 recites that at least one of the variables has less than the first predetermined level of significance. Because claim 1 also recites "selecting variables having at least a first predetermined level of significance from a pool of potential predictor variables ... to form a first population of predictor variables", the at least one variable for the cross products is from a group of unselected variables in the initial pool of potential predictor variables, other than those variables selected for the first population of predictor variables. Bounsaythip did not describe and would not have made obvious any method for selecting additional variables for the new fields, let alone "at least one of the variables having less than the first predetermined level of significance".

... selecting variables having at least a third predetermined level of significance from the extended second population of predictor variables to form a third population of predictor variables (see page 6, # 2.3.3, last paragraph), ...

The applicant disagrees. The examiner has more than once cited this paragraph of the reference as having described the a number of features included in claim 1: "to form a first population of predictor variables", "extending the first population of predictor variables", "to

form a second population of predictor variables", "extending the second population of predictor variables", and "to form a third population of predictor variables". However, the cited paragraph says nothing more than:

> New fields can be generated through combinations, e.g. *frequencies, cross-tabulations, averages* and *minimum/maximum* values, *relationships* between different profiling variables etc. The number of variables can be reduced to a more manageable size while also removing correlations between each variable. Techniques used for this purpose are often referred to as *factor analysis, correspondence analysis* and *conjoint analyses* [WWW3].

The identified features of claim 1 regarding the predictor variables simply were not described and would not have been obvious to a person of ordinary skill in the field from this paragraph in the reference.

> **... automatically selecting a model generation method from a set of available model generation methods to match characteristics of the historical data and generating a possible model of the third population of predictor variables using a subsample of the historical data by the model generation method (see page 9, # 2.4.3), ...**

The applicant disagrees. The section cited by the examiner had nothing to do with "selecting a model generation method from a set of available model generation methods". Instead, model deployment, in which the most discriminating data variables were identified, was described. The cited section also was irrelevant to "automatically selecting ... to match characteristics of the historical data".

> **As to claim 31, Bounsaythip discloses a machine-based method comprising in connection with a project, automatically selecting a model generation method from a set of available model generation methods to match characteristics of the historical data about a system being modeled and generating a predictive model based on the historical data (see page 7, # 2.4), and displaying to a user a lift chart, monotonicity, and concordance scores associated with each step in a step-wise model fitting process (see page 40-42, # 7; page 47).**

Bounsaythip did not describe and would not have made obvious "automatically selecting a model generation method from a set of available model generation methods to match characteristics of the historical data". For example, "an automatic machine-based method" (contrary to a manual process) can be used "to select the class of models most suitable to the pool of predictor variables for the associated dataset", as stated in the specification, page 2, lines 6-8. Bounsaythip did not describe and would not have made obvious selecting a model generation method but only stated that "The model is then constructed by analyzing the response

from that mailing, determining how each demographic and behavioral variable affected the response." (page 7, section 2.4, first paragraph) Bounsaythip at most generated his model based on the characteristics of the historical data, but did not "select a model generation method ... to match characteristics of the historical data". Bounsaythip also did not automatically select a model generation method.

As to claim 34, Bounsaythip discloses a machine-based method comprising receiving from separate sources, sets of potential predictor and dependent variables representing historical data about a system being modeled (see page 6, # 2.3.2, 2.3.3; page 7, # 2.4), and enabling a user of a model generation tool to combine at least two models based on response propensities of each model in order to create cross-modal deciles and based on data weaving of the historical data to provide cross-modal optimization, the combining including concatenating the predictions of the two models (see page 7, # 2.4; page 39, # 4.6).

Bounsaythip did not describe and would not have made obvious "enabling a user ... to combine at least two models ..., the combining including concatenating the predictions of the two models." Bounsaythip described only generating models based on collected data and had nothing to do with combining models. Section 4.6 of Bounsaythip described gathering and analyzing data collected from web transaction logs for generating a "rule" for future marketing strategies (page 39, last paragraph, and page 41, paragraphs below Table 18). As clearly described by the title of the section 4.6.1, data was being clustered, not models (page 39).

For example, on pages 41-42, Bounsaythip showed in Table 17 recorded data about 5 visitors visiting different types of webpages "planning", "fashion & beauty", "food & venue", "travel", and "gifts". Table 18 is generated by clustering and reorganizing the data of Table 17. From Table 18, "associations rules" can be found by directly reading the contents of the table (in other words, rewriting the numerical contents of the table into words). For example, Table 18 shows that there are 3 visitors who visited both the planning and the fashion & beauty webpages, which is higher than any other combinations of two different webpages. Analysis of this data led to a conditioned (e.g., if one visits fashion & beauty, then ...) rule in which the user is interested (page 41).

Bounsaythip generated rules using the clustered data in Table 18, by including different conditions or different variables. Bounsaythip's combination of data or variables for generating

the rules was not "combining at least two models", at least because Bounsaythip did not have models generated for combination, but only had clustered data for generating the rules.

Claims 2, 6-10, 14, 15, 17, 18, and 32 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bounsaythip as applied to claims 1 and 31 above, taken in view of Karen Papierniak, (Papierniak hereinafter), Pre-Grant publication 200301 54442.

Claims 23, 25, 29, and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Bounsaythip as applied to claims 1 and 34 above, taken in view of Heller et al., (Heller hereinafter), U.S. Patent 7,349,827.

All of the dependent claims are patentable for at least the reasons for which the claims on which they depend are patentable.

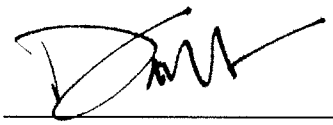
Canceled claims, if any, have been canceled without prejudice or disclaimer.

Any circumstance in which the applicant has (a) addressed certain comments of the examiner does not mean that the applicant concedes other comments of the examiner, (b) made arguments for the patentability of some claims does not mean that there are not other good reasons for patentability of those claims and other claims, or (c) amended or canceled a claim does not mean that the applicant concedes any of the examiner's positions with respect to that claim or other claims.

Please apply $555 for the Petition for Extension of Time fee and any other charges or credits to deposit account 06-1050, referencing attorney docket 17146-0007001

Respectfully submitted,

Date: 12/23/9



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